

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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| In the Matter of |) | |
| |) | |
| Wireless Emergency Alerts |) | PS Docket No. 15-91 |
| |) | |
| Amendments to Part 11 of the |) | PS Docket No. 15-94 |
| Commission's Rules Regarding the |) | |
| Emergency Alert System |) | |

COMMENTS OF MICROSOFT CORPORATION

In the September 2016 Report and Order,¹ the Commission adopted several new requirements for the Wireless Emergency Alert ("WEA") system that should improve the system's effectiveness in protecting and saving lives and property through timely and meaningful alerts for end users. Microsoft was heartened that the Commission, after considering input, modified some of its original proposals by establishing reasonable timelines, in most instances, that will allow industry and the public safety community the opportunity to develop, test, and implement new features in a manner suitable for mission-critical applications.

The Further Notice seeks comment on many additional potential improvements to the WEA system. Microsoft supports the Commission's commitment to innovation and continued improvement. Nonetheless, because some of the proposals in the

¹ *Wireless Emergency Alerts; Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System*, PS Docket Nos. 15-91 and 15-94, Report and Order and Further Notice of Proposed Rulemaking, FCC 16-127 (rel. Sep. 29, 2016) ("Further Notice").

Further Notice remain at an early stage in their development, Microsoft discusses several of them with the hope that the Commission could release more concrete recommendations for comment before adopting any final rules.

I. Wireless Emergency Alerts on Tablets

The Further Notice seeks comment on extending WEA capabilities to tablets.² Extending wireless emergency alerts to tablets warrants consideration of several factors that are not addressed in the Further Notice.

A. Definition of Covered Devices. The Commission must define which mobile devices would be considered a tablet and thus subject to WEA requirements. Although the Further Notice references the iPad, a wider variety of device form factors is currently available in the marketplace. It may be difficult to define a tablet by any singular feature. For example, it would not be sufficient to define a tablet as a device that enables touch-screen input. A definition focused on touch-screen would be over-inclusive, capturing most new devices running the Windows 10 operating system, including desktops. In addition, Microsoft offers a number of devices that operate as hybrids. For example, the Surface Book allows the display to detach from the keyboard. The Surface Pro often is used in conjunction with an attachable keyboard. Several other Windows products, such as the Lenovo ThinkPad, permit the display to be folded backwards, causing the display screen to become the source of input rather than the

² Further Notice at ¶ 108.

keyboard yet the two remain physically attached. If the Commission modifies its definitions to include tablets, defining tablets would help manufacturers and CMS providers to determine whether a particular device model could be covered for WEA purposes.

B. Covered mobile devices must be offered by the CMS Provider. The Further Notice misinterprets the scope of the Commission's definition of "mobile device." The Commission should continue to use its existing definition of "mobile device," which does not turn on the connection to a network and does not encompass the breadth described in the Further Notice: "any mobile device connected to a Participating CMS Providers' [sic] network."³ The existing definition turns on two factors: (1) equipment "generally offered by" CMS providers; and (2) equipment that "supports the distribution of WEA Alert Messages."⁴ The definitional elements reflect, generally, the statutory reference to sale of "devices with which [the CMS provider's] commercial mobile radio service is included."⁵ That is, the WEA rules leverage the role of the CMS provider as an offeror of devices in conjunction with their mobile service. CMS providers offer an array of smartphones and feature phones. CMS Providers' offerings of other computing devices, however, are significantly more limited. Consumers are more likely to purchase tablets and other non-phone computing devices at locations that are not subject to the

³ Further Notice at ¶ 108.

⁴ 47 CFR § 10.10(j) (defining "mobile devices" as "[t]he subscriber equipment generally offered by CMS providers that supports the distribution of WEA Alert Messages.").

⁵ 47 U.S.C. § 1201(b)(1)(B).

statutory point-of-sale disclosure requirements: manufacturer stores (e.g., Microsoft Store, Apple Store), unaffiliated physical retail outlets (e.g., Best Buy, Target, Walmart), and online (e.g. Amazon.com, QVC.com). The awkward fit of tablets into the WEA structure may suggest that they are not appropriate for inclusion. Microsoft supports the goals of the wireless emergency alert system, but encourages the Commission, when considering extension of the WEA to tablets, to remain mindful of avoiding mission creep beyond the more targeted focus of the statute.

C. Caution to avoid unrealistic consumer expectations. The Commission should remain mindful of the potential for creating customer confusion. If tablets were required to support wireless emergency alerts, consumers would be expected to know which types of devices constituted “tablets,” whether a device purchased somewhere other than a CMS provider possessed WEA capability even without point-of-sale information, which models offered wireless emergency alerts (e.g., those with LTE connectivity) and, among those, whether alerts will be unavailable when only a private Wi-Fi network is available. The best intentions of expanding WEA availability may create consumer expectations for tablets that are not satisfied throughout the marketplace.⁶

D. Timeline should account for normal manufacturing cycles. Finally, the tablet proposal falls within a section of the Further Notice entitled “Defining the Modes of

⁶ The absence of wireless emergency alerts on tablets may not present a significant issue, in practice. The Commission may wish to determine the estimated number of Americans who possess an LTE tablet but do not possess a cellular phone.

Participation in the WEA.” Figure 4 identifies 120 days as the compliance timeframe for requirements contained in the “Defining the Modes of Participation in the WEA” category.⁷ Microsoft suspects the Commission does not intend to impose WEA requirements on tablets with a four-month compliance timeframe.⁸ Such an abbreviated timeframe would be unreasonable and unrealistic given typical manufacturer development cycles. At a minimum, if the Commission determines that tablets should include WEA capabilities, the changes needed would involve operating system modifications, hardware changes (including the potential for modem modifications), testing, and development of new customer instruction materials. Accordingly, the Commission should afford manufacturers a timeframe that is significantly more extensive than four months if it adopts final WEA requirements applicable to tablets.

II. Preserving Emergency Alerts on a Device

It is technologically feasible to preserve emergency alerts on a device and, as the Further Notice acknowledges, Windows smartphones already do so.⁹ Microsoft counsels against imposing a uniform mechanism for alert preservation, however. Requiring uniformity among different operating systems lessens the uniqueness of each operating system, dampens innovation, and hamstrings the evolution of a feature over

⁷ Further Notice at ¶ 175, Fig. 4.

⁸ See *id.* at ¶ 179 (suggesting that the 120-day compliance period would apply to point-of-sale notification requirements).

⁹ *Id.* at ¶ 115.

time.¹⁰ In addition, a uniformity requirement could generate confusion or, at a minimum, an off-putting experience for a consumer who will encounter an approach and experience for preserved alerts that could differ remarkably from the rest of the user experience on their OS that is familiar to them. If the Commission wishes to ensure the preservation of emergency alerts on a mobile device, it should require only that they be preserved in a manner that can be accessed by the authorized user of the device for a specified period of time, and allow manufacturers to develop the manner of implementing that objective.

III. Multimedia Alerts

Microsoft consistently has expressed the position that no efforts to improve the system, however well-intentioned, should detract from or interfere with achieving the primary goal of the WEA system which is to alert users to imminent life-threatening circumstances without delay.¹¹ Minimizing delay is imperative because mere seconds can be critical in some emergencies. The Further Notice acknowledges that embedding multimedia in an emergency alert will delay delivery of the message.¹² Although it is the Commission's responsibility to consider the extent to which inclusion of multimedia in wireless emergency alerts could risk lives, Microsoft recommends that if multimedia

¹⁰ User interfaces also represent one mechanism by which devices distinguish themselves from each other. Thus a demand for uniformity would lessen that source of competition.

¹¹ See, e.g., Letter from Paula Boyd, Microsoft Corporation to Marlene H. Dortch, Federal Communications Commission, PS Docket No. 15-91 at 1 (dated March 8, 2016).

¹² *Further Notice* at ¶ 127.

(e.g., photos of limited size) is approved for alerts, it should be permitted only after applicable standards have been developed and only for AMBER alerts which, while time sensitive, are better positioned than other types of emergency warnings to tolerate a 60-second latency.

IV. Consumer Choice for Emergency Alerts

The Commission proposes to require more granular emergency alert options for consumers on their phones and suggests a uniform user interface for a menu of alert choices.¹³ Microsoft strongly supports the Commission's inclination to allow additional choices for receiving emergency alerts. Allowing consumers to fine-tune when and how they wish to receive the different types of alerts will encourage greater consumer participation in the system. The Commission should afford flexibility for implementing those choices, defining only that level of flexibility that should not be granted, such as a prohibition on turning off Presidential Alerts. The design of the menu and controls, however, should remain with the developer of the operating system and the manufacturer. Microsoft, like other OS developers, devotes considerable thought and resources to a UI design that remains consistent across the user experience, promoting a user's familiarity and comfort with the device and the device ecosystem. To insert a set of controls or model menu that diverges from the otherwise consistent user experience would create confusion about how that menu's operation differs from the

¹³ *Id.* at ¶¶155-158.

remainder of the phone.

In addition to being suboptimal for users, imposing device-specific user interface requirements would be unnecessarily intrusive for OS developers and manufacturers.¹⁴ Ultimately, participation in the Wireless Emergency Alert system is voluntary. While some technical standards and requirements are warranted, mandatory obligations should be minimized to encourage the greatest participation in the alert system.

V. Other Issues

The Further Notice proposes several additional requirements for the WEA system involving technical issues that should be studied further or considered by standards bodies before the Commission can determine their feasibility or whether it would be in the public interest to include them as WEA requirements. For example, device-based geo-targeting raises a number of issues and concerns that could affect the quality and precision of alerting such as the appropriate device behavior for presenting an alert if it cannot obtain a location or is slow in receiving location information and when/whether it should revert to using some type of approximate location based on cell site information.

¹⁴ Government-mandated WEA control design would cause friction with design innovation for the device and its ecosystem. OS developers do not generally need to seek government approval for their device designs. If the Commission adopted a uniform design requirement, that menu would remain static and out of step with other changes on the phone. Alternatively, as the phone's user interface and design naturally evolved over time, an OS developer or manufacturer would need to apply for a waiver from a federal government agency to make design changes on the phone (e.g. to the emergency alert control menu).

With respect to multilingual alerts, standards bodies would need to establish how a device determines in which language an alert should be displayed (*e.g.*, based on the operating system language selection). In addition, the Commission should recognize that support for multilingual alerts will create a delay in displaying an emergency alert message and must determine, as a threshold matter, whether delay is worth the additional language recognition.¹⁵ If so, then standards bodies must establish, among other things, how long the device should wait to determine if it will receive the alert in the language selected for the device before presenting the alert in a default language such as English. Finally, the addition of languages other than English and Spanish will involve the expenditure of resources, diverting resources from the development of other features, including other WEA enhancements. Before the Commission requires diversion of resources to this requirement, it would be useful to quantify the actual benefits of doing so. Accordingly, we recommend that the Commission estimate how many alert originators will commit to having the capability and to issuing regularly alerts in languages other than English or Spanish.

VI. Conclusion

The Further Notice contains some potentially productive and effective ideas for improving the Wireless Emergency Alert system. Some of those ideas are still in a beginning stage and would benefit from more stakeholder input before being

¹⁵ In response to the question presented in the Further Notice, *see Further Notice* at ¶ 136, Windows smartphones support the basic Unicode (UCS-2) character set.

presented formally as proposed rules. Nevertheless, Microsoft supports the commitment to innovation in the Wireless Emergency Alert system and looks forward to contributing to its continued improvement.

Respectfully submitted,

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